

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/060987 A1

(51) International Patent Classification⁷: **A61K 38/16**

[KR/KR]; 70-14 Yeokchon-dong, Eunpyeong-gu, Seoul 122-070 (KR).

(21) International Application Number:
PCT/KR2004/003204

(74) Agent: **HONG, Sung-Pyo**; 4F, Edogin Bldg., 827-58 Yeoksam-dong, Kangnam-gu, Seoul 135-080 (KR).

(22) International Filing Date: 7 December 2004 (07.12.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2003-0095340
23 December 2003 (23.12.2003) KR

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (for all designated States except US): **CEL-LONTECH CO., LTD.** [KR/KR]; 710, 7F., Wooyoung Techno Center, 273-15, Seongsu 2-ga, 3-dong, Seongdong-gu, Seoul 133-123 (KR).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

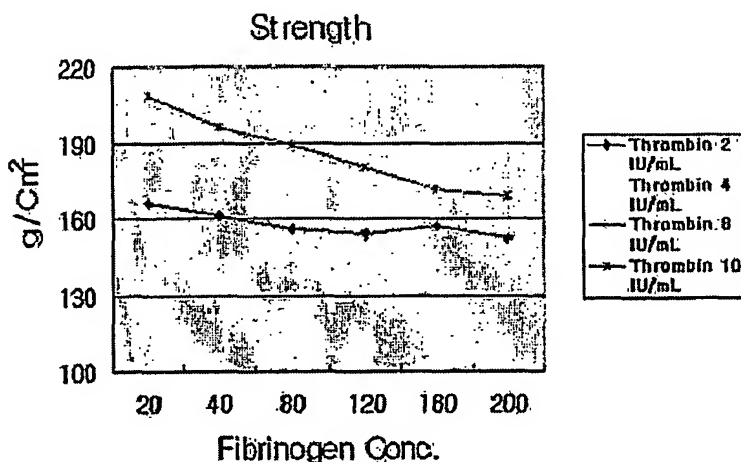
(75) Inventors/Applicants (for US only): **CHANG, Cheong-Ho** [KR/KR]; 503-802 Samhogarden APT., Banpo-dong, Seocho-gu, Seoul 137-040 (KR). **KO, Chang-Kwon** [KR/KR]; 110-2002 Dongbu centrebill Apt, Gireum 3-dong, Seongbuk-gu, Seoul 136-113 (KR). **JANG, Jae-Deog** [KR/KR]; 7-405 Lotte Apt., Junggye 2-dong, Nowon-gu, Seoul 139-222 (KR). **LEE, Eun-Young** [KR/KR]; 101, Sunhouse, 120-8 Huam-dong, Yongsan-gu, Seoul 140-190 (KR). **CHOI, Jeong-Yong**

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A COMPOSITION FOR CARTILAGE THERAPEUTICS AND USING METHOD THEREOF



(57) Abstract: The present invention relates to a cartilage therapeutic composition, capable of being clinically transplanted to articulation genu (knee joint) or ankle joints, in particular clinically significant, symptomatic cartilage defects of the femoral condyle (medial, lateral, or trochlear) and bone cartilage defects of the talus (anklebone) in human or animal hosts, and a method of using the same. The cartilage therapeutic composition in accordance with the present invention comprises a mixture of components of chondrocytes isolated and expanded or differentiated from a host such as human or animal, and thrombin and a fibrinogen matrix containing fibrinogen. Further, provided is a method of using the cartilage therapeutic composition such that a mixture of thrombin, chondrocyte components and a fibrinogen matrix is injected to a cartilage defect region followed by solidification therein.

Therefore, in accordance with the present invention, it is possible to promote rapid and effective regeneration of cartilage without imposing excessive burden associated with a surgical operation, and to realize a safe and simplified process by using an arthroscope for transplantation.